

the rejection because the Official Action has not made a *prima facie* case of obviousness.

As stated in MPEP §§ 2142-2144.04, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some reason, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some reason to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

The prior art, either alone or in combination, does not teach or suggest all the features of the independent claims. Independent claims 1 and 7 recite a thin film integrated circuit comprising a thin film transistor having a semiconductor film of thickness of 0.2 μm or less; and independent claims 44, 46 and 48 recite that each of a plurality of thin film integrated circuits comprises a thin film transistor having a semiconductor film of thickness of 0.2 μm or less. Independent claims 2 and 47 are directed to an integrated circuit inside (or enfolded in) a film-like article and an antenna outside (or on a surface of) the film-like article; independent claims 5 and 45 are directed to an integrated circuit and an antenna outside (or on a surface of) the film-like article; and independent claim 6 is directed to an antenna inside a film-like article and

an integrated circuit outside (or on a surface of) the film-like article. These features are summarized in the following chart:

claim	inside the film-like article	outside the film-like article
2, 47	integrated circuit	antenna
5, 45		integrated circuit + antenna
6	antenna	integrated circuit

Dependent claims 8-12 recite a substrate, where an opening with slits is provided in the substrate, and where a thin film integrated circuit is electrically connected to an antenna through the opening in the substrate.

For the reasons provided below, Kayanakis does not teach or suggest the above-referenced features of the present invention.

Referring to the above-referenced features of claims 1, 7, 44, 46 and 48, the Official Action concedes that "this configuration is not specifically disclosed by Kayanakis" (page 2, Paper No. 20100328). The Official Action asserts that "it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the above stated features into the circuits of Kayanakis, since the examiner takes Official Notice that in the integrated circuit art, use of thin film transistors is well known and would have constituted design features that would have been readily recognized by one of ordinary skill in the art" (Id.; emphasis added). The Applicant respectfully disagrees and traverses the assertions in the Official Action.

Initially, regarding use of Official Notice, MPEP § 2144.03.A states the following: "It would not be appropriate for the Examiner to take official notice of facts without citing a prior art reference where the facts asserted to be well known are not capable of instant and unquestionable demonstration as being well-known." Also, the CCPA explicitly rejected "the notion that judicial or administrative notice may be taken of the state of the art. The facts constituting the state of the art are normally subject to the possibility of rational disagreement among reasonable men and are not amenable to the taking of such notice." See also MPEP § 2144.03.B, which is titled "If Official Notice Is Taken of a Fact, Unsupported by Documentary Evidence, the Technical Line Of

Reasoning Underlying a Decision To Take Such Notice Must Be Clear and Unmistakable" and MPEP § 2144.03.C, which is titled "If Applicant Challenges a Factual Assertion as Not Properly Officially Noticed or not Properly Based Upon Common Knowledge, the Examiner Must Support the Finding With Adequate Evidence." In the present application, the Applicant respectfully submits that the Official Action has not shown that the features missing from Kayanakis, i.e. a thin film integrated circuit comprising a thin film transistor having a semiconductor film of thickness of 0.2 μm or less, are capable of instant and unquestionable demonstration as being well-known. Specifically, it is noted that one of the objects of the claimed invention is to reduce the thickness of a film-like article comprising a thin film integrated circuit and an antenna by using a thin film transistor. The Official Action has not demonstrated that one of ordinary skill in the art at the time of the present invention would have recognized that a thin film transistor should be used in the technical field of film-like articles. Therefore, it is not obvious to provide a thin film transistor having a semiconductor film of thickness of 0.2 μm or less in a film-like article. In accordance with MPEP § 2144.03, the Applicant respectfully traverses the above-referenced assertions and requests that the Examiner cite references in support of his position or allow the claims.

With respect to the above-referenced features of claims 2, 5, 6, 45 and 47, the thin film integrated circuit and/or the antenna is/are mounted on a surface of the film-like article. On the other hand, with respect to claim 1, the Official Action asserts that Kayanakis discloses that "the circuit and antenna being mounted inside the film-like article is met by the chip(22) and antenna(24) being mounted inside of paper layers(18 and 20)" (page 2, Paper No. 20091025). That is, in Kayanakis, both an integrated circuit 22 and an antenna 24 are mounted inside a ticket 10. As such, Kayanakis does not teach or suggest the above-referenced features of claims 2, 5, 6, 45 and 47.

Without any specific references to Kayanakis in support and without establishing the level of ordinary skill in the art at the time of the present invention, the Official Action asserts that "it would have been obvious that the antenna or circuit would have been

readily mounted on or inside the paper (page 3, id.). The Applicant respectfully disagrees and traverses the assertions in the Official Action.

Kayanakis discloses that "[t]he fabrication of the antenna forms an important characteristic of the invention as it contributes to providing a less expensive ticket" (column 3, lines 18-20), that "[a] chip is then installed in the center of each antenna in the manner shown in FIG. 3" (column 3, lines 40-42), and that "in FIG. 4, each electronic module 14 consists of a support 15 on which an antenna 24 was screen printed and on which an integrated circuit or chip 22 was installed" (column 3, lines 48-51). The Official Action fails to demonstrate any manner in which one of ordinary skill in the art at the time of the present invention could maintain this "important characteristic" of Kayanakis, yet have a reasonable expectation of successfully implementing a configuration, for example, in which chip 22 is mounted inside the paper layers while antenna 24 is mounted on a surface of the paper layers. As such, the Examiner's proposed modification of the prior art appears to render the prior art invention being modified unsatisfactory for its intended purpose, which indicates that there is no suggestion or motivation to make the proposed modification. In re Gordon, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). Also, although the Official Action has not formally invoked Official Notice with respect to these features, it appears that the assertions in the Official Action are not based on prior art references. The Applicant respectfully submits that the Official Action has not shown that the features missing from Kayanakis, i.e. the above-referenced features of claims 2, 5, 6, 45 and 47, are capable of instant and unquestionable demonstration as being well-known. In accordance with MPEP § 2144.03, the Applicant respectfully traverses the above-referenced assertions and requests that the Examiner cite references in support of his position or allow the claims.

Regarding dependent claims 8-12, the Official Action asserts that "connection of the circuits to the antenna through an opening in the substrate would have been obvious, since this would have provided an unobtrusive means of connecting the

antenna with the circuit" (page 2, Paper No. 20100328). Although the Official Action has not formally invoked Official Notice with respect to these features, it appears that the assertions in the Official Action are not based on prior art references. The Applicant respectfully submits that the Official Action has not shown that the features missing from Kayanakis, i.e., a substrate, where an opening with slits is provided in the substrate, and where a thin film integrated circuit is electrically connected to an antenna through the opening in the substrate, are capable of instant and unquestionable demonstration as being well-known. In accordance with MPEP § 2144.03, the Applicant respectfully traverses the above-referenced assertions and requests that the Examiner cite references in support of his position or allow the claims.


Therefore, the Applicant respectfully submits that Kayanakis does not teach or suggest the above-referenced features of independent claims 1, 2, 5-7 and 44-47 and dependent claims 8-12.

Since Kayanakis does not teach or suggest all the claim limitations, a *prima facie* case of obviousness cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below.

The Commissioner is hereby authorized to charge fees under 37 C.F.R. §§ 1.16, 1.17, 1.20(a), 1.20(b), 1.20(c), and 1.20(d) (except the Issue Fee) which may be required now or hereafter, or credit any overpayment to Deposit Account No. 50-2280.

Respectfully submitted,



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